

Amendments to the Abstract:

Please replace the previous Abstract with the following redlined Abstract:

A2 For encoded membership functions used to identify the atomic conditions defining the antecedents of fuzzy inferences, and also for the determination of the determining operands of the antecedents, corresponding stores are configured for the storage of the to store already available values of these encoded membership functions and of the operands. At the time of identification of a new value for the quantities, a check is made to see whether this value is already present in the corresponding store. If the outcome of this check is positive, in the case of for encoded membership functions, the mechanism pointers by which the encoded fuzzy inferences point to these functions is changed, so that the pointers of the encoded fuzzy inferences are redirected towards the membership functions which are already stored. In the case of the for operands of the antecedents, the check of the corresponding back-up store is carried out preferably based on the basis of the corresponding calculation values, the calculation of a new operand being disabled when it is found that the corresponding calculation parameters are already present in the corresponding back-up store. The aforesaid store is preferably configured as a stack to which new calculated operand values are written at the uppermost position, with the possibility of making values identified as already present shift back to this uppermost position.